The timing of PCI

Ronner et al\textsuperscript{[1]} concluded in their article that patients who had undergone percutaneous coronary intervention (PCI) on day 1 had the lowest incidence of death or myocardial infarction (MI) compared to patients who underwent PCI after day 1.

They state that longer medical stabilization is unnecessary when the decision to perform PCI has been made. However, in our opinion it is not fair to draw conclusions about the timing of intervention cumbersomely, and as the authors stated: answering the question about ideal timing of intervention requires well-designed clinical trials in which the definition of MI is not dependent on the timing of intervention.

A reply

Thank you for showing interest in our paper focusing on the clinical implications of the occurrence of ST depression in unstable coronary artery disease. This was addressed in the letter from Mickley et al. but the questions deal mainly about the exercise test.

Some of these issues are addressed in three forthcoming papers. These will detail the results concerning the exercise test and, in addition, present a multivariable risk score and outcome in a 2-year perspective. One of these papers is in press and two are under consideration for publication. Hopefully, they will provide answers to some of the questions.

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Reference


A reply

The above letter commented on our article on the timing of interventional treatment of patients with ACS without persistent ST-segment elevation in a post-hoc data-analysis from PURSUIT.

To discriminate between procedural and enrolment MI for patients undergoing very early PCI in PURSUIT, an adjusted definition for MI was indeed used during the first 18 h. This definition was used for patients with enrolment MI, and not for patients without enrolment MI. It was thereby applicable for 84 eptifibatide, and 109 placebo patients, while the total number of patients undergoing PCI within 24 h was 620.

This pre-defined definition for MI included any period of 30 min of chest pain with 30 min of ST-elevation. This definition contrasted to, three times the upper limit of normal CK after PCI. One could therefore hypothesize that procedural infarction in patients treated with PCI within 18 h is likely to be over- instead of under-estimated, as the authors suggest.

This very relevant topic of adjudication of MI, as enrolment or procedural MI, was performed by an independent blinded critical event committee (CEC) and also compared to MI as defined by the principal investigators. Both definitions (CEC- and principal investigators-defined MI) led to similar results.

It is well recognized that the observed, and debated, day 1 results were important in our analysis. It should be noted that the trend of events with PCI at different intervals, as well as overall 30-day results, all pointed in the same direction. It was this combination of findings that led to our recommendation.

Our recommendation is to intervene without further medical stabilization when the choice is made to intervene. This is conceivable from our data, and also conceivable from our rationale; medical treatment alone to the time of PCI is related to a chance of events over time, while procedural risk declines over time. We thus hypothesize that this procedural chance of events in ACS without persistent ST-segment elevation is related to risk of medical management alone at a specific moment in time. As platelet GP IIb/IIIa receptor blockers markedly reduce procedural risk of MI (by approximately 40%) but only slightly reduce risk (by approximately 10%) during medical management of ACS without persistent ST-segment elevation, the greatest gain by platelet GP IIb/IIIa receptor blockers is obtained when risk of procedural events is highest. Thereby a period of stabilization in which events can occur is avoided, while procedural risk is strongly reduced by platelet GP IIb/IIIa receptor blockers.

We strongly agree, however, that a prospective well-designed randomized trial is needed to test our retrospective findings.

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